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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/465,415	12/16/1999	BRYAN SEVERT HALLBERG		8841

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EXAMINER

BOCCIO, VINCENT F

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/465,415

Applicant(s)

HALLBERG ET AL.

Examiner

Vincent F. Boccio

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment of 8/20/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 2616.

Response to Arguments

1. Applicant's arguments with respect to amended claims {all} have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue et al. (US 5,832,085).

Regarding claim 1, Inoue discloses and meets the limitations associated with a method of processing MPEG transport stream (col. 7, lines 14-24, "decodes transport packet header TSH ... determines whether the video is copy protected"), data comprising the steps of:

- copying the MPEG transport stream data to a data block formatted for digital video

(reference the combination of elements of Fig. 2 and Fig. 4, wherein Fig. 2 is a formatting element, reference MPEG Packetizer 145 and Multi-plexing 147 to DC interface and Fig. 4, MPEG packetizer 490 and memory elements 430, 435, 440, and 445, wherein the packetizer, col. 4, generates packets for trick and normal play ... forwarded to multiplexer"), therefore, based on the disclosed elements between the packetizer, buffer elements and multiplexer, these elements read on copying the transport stream and formatting for recording into a block of data, or successive data blocks and in view of Fig. 2, wherein the DC interface {or DC, digital recorder, col. 3, lines 38-42, "55 receives the data and performs internal formatting,

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and

storing the data block on a storage medium in a digital video storage format (recorded to reading/playback mechanism 70 of element of 55, of Fig. 1, recording the received and format converted, transport stream, having a trick and normal play streams multiplexed.

Regarding claim 2, Inoue further at col. 4, utilizes a digital cassette, or a digital tape.

Regarding claim 4, Inoue further meets the limitation of repeating the copying of the data to another the data block (met by the creation of the trick streams, which is a repeat of the stream data for trick play operations, col. 2, "special two speed trick play recording processing" and also reference col. 6, line 1-, the trick streams are created from the normal, therefore repeating the copying of at least part the normal, such as the MPEG I frames, as is conventional in the art),

- wherein since the trick stream is of the normal, reads on wherein another video data block is a data element of another of said digital video frame (such as the I frames used for trick play operations), as recited in claim 9.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 5,832,085) in view of Takeda et al. (US 6,101,215).

Element of claim 3, have been discussed above, but, Inoue fails to disclose,

- copying the data block or blocks to a payload portion of an isochronous data transfer packet, claim 3; or
- copying the digital video to an isochronous data packet, claims 7 & 10.

Takeda teaches in col. 1, "by using IEEE 1394 it has been attempted to develop the transport stream of MPEG 2 and the method of transfer of data of the DV which is a digital VCR/VTR for household use. In this method, the isochronous transfer is employed in the transfer of video and audio data", as taught by Takeda.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify Inoue by utilizing the IEEE 1394 standard digital interface to copy or encapsulate the received MPEG transport stream, to transfer between the recorder and formatting element, in an isochronous manner, which, "isochronous transfer used in transfer of data of which real time must be guaranteed, such as video and audio data, col. 1, lines 25-, as taught by Takeda.

5. Claims 5-6, 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 5,832,085), as applied, in view of Oskouy et al. (US 6,791,947).

Claims 5-6 are analyzed and discussed with respect to the claims above, but, claim 5 recites an additional limitation of

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copying but, not including the first byte of the video data block, reads on {in view of not describing the purpose of not including in the claims},

- col. 4, lines 54-, "default header is modified", therefore, not including, "the original or the default, but providing a modified version;

in an alternative reading,

- "to insert dummy data into the header", therefore, not including the original or first byte, by changing the header, which the header reads on at least a first byte, wherein headers are just that at the head or are first,

therefore, Inoue is adapted to change or modify the at least the first byte,

but, fails to anticipate the claims in view of the passages are associated with a Hughes/DirectTV broadcast signal rather than the alternately received signal being the MPEG transport stream (reference cols. 1 & 4, an embodiment "header information extracted from the NON MPEG formatted packet"), further reference (col. 5, lines 25-, "incoming data ... encoded in the Mpeg format ... there is no need to for the MPEG packetizer to create or modify the MPEG header").

Oskouy teaches col. 2, lines 14-25, a technique of screening header layer data associated with the data packet for errors and dropping a bad data packet prior to transferring any portion of the data packet to packer memory ... arising from unrecognized header formats etc..., as taught by Oskouy.

Therefore, it would have been obvious to those skilled in the art to modify Inoue by detecting headers errors and dropping packets and their non-usable/in error headers, when detected as suggested by Oskouy, thereby providing a means to not copy/include, a first byte met the header, of the video data block, when the data is in error, as suggested by the art.

Claims 8-9 are analyzed and disclussed with respect to claim 4 above.

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6. Claims 7 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue et al. (US 5,832,085) and Oskouy et al. (US 6,791,947), as applied, in view of Takeda et al. (US 6,101,215).

Claims 7 and 10, based on the combination as applied above, fails to disclose,

- copying the data block or blocks to a payload portion of an isochronous data transfer packet, claim 3; or
- copying the digital video to an isochronous data packet, claims 7 & 10.

Takeda teaches in col. 1, "by using IEEE 1394 it has been attempted to develop the transport stream of MPEG 2 and the method of transfer of data of the DV which is a digital VCR/VTR for household use. In this method, the isochronous transfer is employed in the transfer of video and audio data", as taught by Takeda.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the combination by utilizing the IEEE 1394 standard digital interface to copy or encapsulate the received MPEG transport stream, to transfer between the recorder and formatting element, in an isochronous manner, which, "isochronous transfer used in transfer of data of which real time must be guaranteed, such as video and audio data, col. 1, lines 25-, as taught by Takeda.

Claims 11-12 are analyzed and discussed with respect to claim 4 etc., above.

Claims 13-15 are analyzed and discussed with respect to the claims 10-12, etc..

7. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue et al. (US 5,832,085) in view of Yanagihara et al. (US 5,684,917).

Claims 16-17 has been analyzed and discussed with respect to Inoue above, but, recites an additional limitation of a step

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of accumulating a quantity equal to a frame, thereafter copying.

While Inoue does disclose in accord to Fig. 4, provides for copying with buffering elements (415, 430, 435, 440, 445), , prior to recording therefore, provides some sort of buffering, but, fails to state accumulating a quantity of one frame, prior to copying.

Yanagihara teaches col. 14, lines 60-, "after a sufficient amount of data is buffered in the buffer memory 41 which corresponds to a complete single image (i.e. frame). In addition, the buffer memory may also be used during recording", as suggested by Yanagihara.

Therefore, it would have been obvious to those skilled in the art at the time of the invention to accumulating an amount in a buffer for a frame prior to copying/recording, thereby obtaining complete frames of data prior to recording would have been obvious to obtains complete frames, prior to recording, as suggested by Yanagihara.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue et al. (US 5,832,085) in view of Yanagihara et al. (US 5,684,917).

Claim 18 is analyzed and discussed with respect to claim 17, but, comprises an additional limitation of wherein a data transfer packet not including the first byte of the data block.

Oskouy teaches col. 2, lines 14-25, a technique of screening header layer data associated with the data packet for errors and dropping a bad data packet prior to transferring any portion of the data packet to packer memory ... arising from unrecognized header formats etc..., as taught by Oskouy.

Therefore, it would have been obvious to those skilled in the art to modify the combination by detecting headers errors and dropping packets and their non-usable/in error headers, when detected as suggested by Oskouy, thereby providing a means to not copy/include, a first byte met the header, of the video data block, when the data is in error, as suggested by the art.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue et al. (US

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5,832,085) and Yanagihara et al. (US 5,684,917) in view of Takeda et al. (US 6,101,215).

Regarding claim 19, the combination reads on the limitation of wherein a transfer packet encoder (Inoue, Fig. 4 etc.....), based on the combination not including the first byte, but, fails to disclose a depacketizer to extract the video frame from the data transfer packet for storage.

Takeda teaches in col. 1, "by using IEEE 1394 it has been attempted to develop the transport stream of MPEG 2 and the method of transfer of data of the DV which is a digital VCR/VTR for household use. In this method, the isochronous transfer is employed in the transfer of video and audio data", as taught by Takeda.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify Inoue by utilizing the IEEE 1394 standard digital interface to copy or encapsulate the received MPEG transport stream, to transfer between the recorder and formatting element, in an isochronous manner, which, "isochronous transfer used in transfer of data of which real time must be guaranteed, such as video and audio data, col. 1, lines 25-, as taught by Takeda.

Based on the encapsulation of the transport stream into 1394, the recited, a depacketizer once packetized to extract the video frame from the data transfer packet for storage, is obvious in view of the combination, to decoding the encapsulated stream on 1394 or from isochronous packets back to the transport stream.

Conclusion

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Fax Information

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communication
intended for entry)

or:

(703) 308-5359, (for informal or draft communications,
please label "PROPOSED" or "DRAFT")

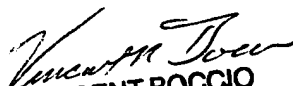
Hand-delivered responses should be brought to Crystal
Park II, 2121 Crystal Drive, Arlington, VA., Sixth
Floor (Receptionist).

Contact Information

Any inquiry concerning this communication or earlier
communications should be directed to the examiner of
record, Monday-Thursday, 8:00 AM to 5:00 PM Vincent F.
Boccio (703) 306-3022.

Any inquiry of a general nature or relating to the status
of this application should be directed to Customer Service
(703) 306-0377.

Primary Examiner, Boccio, Vincent
1/24/05


VINCENT BOCCIO
PRIMARY EXAMINER